

WHAT IS CLAIMED IS:

1 1. An information handling system comprising:
2 a motherboard;
3 components coupled to the motherboard and operable to process information;
4 a trusted bus operable to securely communicate information between the
5 components;
6 an integrated keyboard operable to accept user inputs;
7 an integrated pointing device operable to accept user inputs;
8 a microcontroller interfaced with the keyboard and pointing device, the
9 microcontroller operable to convert keyboard and pointing device user
10 inputs into HID packets and to embed the HID packets as messages on
11 the trusted bus;
12 a state machine associated with the motherboard and interfaced with the
13 trusted bus, the state machine operable to extract the HID packets from
14 the trusted bus; and
15 HID trusted registers interfaced with the state machine and operable to provide
16 the HID packets to one or more of the components.

1 2. The information handling system of Claim 1 wherein the trusted bus
2 comprises a SMBus.

1 3. The information handling system of Claim 2 wherein the trusted bus
2 comprises a dual SMBus for bi-directional communication between the state machine
3 and the microcontroller.

1 4. The information handling system of Claim 1 wherein the trusted bus
2 comprises a SPI bus.

1 5. The information handling system of Claim 1 further comprising:
2 an external controller interfaced with the motherboard, the external controller
3 operable to accept user inputs from a external keyboard and to convert
4 the external keyboard inputs into HID packets; and

5 HID non-trusted registers interfaced with the external controller and operable
6 to provide the external keyboard input HID packets to one or more of
7 the components.

1 6. The information handling system of Claim 5 wherein the components
2 comprise a chip set for communicating with external devices and the state machine
3 comprises firmware associated with the chipset.

1 7. The information handling system of Claim 1 wherein the integrated
2 pointing device comprises a touchpad.

1 8. A method for communicating user inputs to an information handling
2 system, the method comprising:
3 detecting user inputs at an integrated pointing device and an integrated
4 keyboard;
5 communicating the inputs to a common microcontroller;
6 converting the inputs with the microcontroller into HID packets;
7 embedding the HID packets as messages on an internal motherboard bus; and
8 extracting the HID packets at the motherboard for processing.

1 9. The method of Claim 8 wherein embedding the HID packets further
2 comprises embedding the HID packets as SMBus messages on an SMBus coupled to
3 the motherboard.

1 10. The method of Claim 9 wherein the SMBus comprises a dual SMBus
2 for bidirectional communication between the microcontroller and motherboard.

1 11. The method of Claim 9 wherein extracting the HID packets further
2 comprises:
3 receiving the SMBus messages at a state machine associated with the
4 motherboard; and
5 transferring SMBus messages having HID packets to HID registers accessible
6 to one or more information processing components.

1 12. The method of Claim 9 wherein the information handling system
2 comprises a portable information handling system.

1 13. The method of Claim 12 further comprising:
2 detecting user inputs at an external input device;
3 communicating the external input device inputs to a second microcontroller;
4 converting the inputs with the microcontroller into HID packets for
5 communication to the motherboard;
6 processing HID packets from the integrated pointing device and integrated
7 keyboard as trusted packets; and
8 processing HID packets for the external input device as non-trusted packets.

1 14. The method of Claim 8 wherein the internal motherboard bus
2 comprises a I2C bus.

1 15. The method of Claim 8 wherein the internal motherboard bus
2 comprises a SPI bus.

1 16. A system for communicating trusted user inputs from a user input
2 device to information processing components of an information handling system, the
3 system comprising:
4 a microcontroller operable to accept user inputs from an integrated keyboard
5 and an integrated pointing device, to convert the user inputs into a
6 format readable by processing components, and to embed the
7 formatted user inputs into SMBus messages;
8 an SMBus interfaced with the microcontroller and operable to transfer the
9 formatted user inputs to a motherboard of the information handling
10 system; and
11 a processing component interfaced with the SMBus and operable to extract the
12 formatted user inputs from the SMBus messages.

1 17. The system of Claim 16 wherein the formatted user inputs comprise
2 HID packets.

1 18. The system of Claim 17 wherein the processing component interfaced
2 with the SMBus comprises a state machine and one or more HID registers.

1 19. The system of Claim 18 wherein the SMBus comprises a dual SMBus
2 operable to communicate bi-directionally between the microcontroller and the state
3 machine.

1 20. The system of Claim 17 further comprising a second microcontroller
2 operable to accept user inputs at an external keyboard and to provide the external
3 keyboard inputs to the motherboard through a non-trusted communication channel.